

NSLS Environmental Assessment Available

Brookhaven plans to upgrade its National Synchrotron Light Source complex. An Environmental Assessment detailing the proposed upgrade can be found on the Web at <http://nslsweb.nsls.bnl.gov/nsls/esh/EA/default.htm>

The National Synchrotron Light Source (NSLS) complex is host each year to about 2,500 researchers from more than 415 universities, laboratories, and companies around the world. The heart of the complex is the NSLS itself, where two synchrotron rings produce x-ray, ultraviolet, and infrared light for experiments exploring the structures and functions of materials. Two other complex facilities (the Source Development Lab and the Accelerator Test Facility) develop new accelerator technology.

Brookhaven Lab and the U.S. Department of Energy are now proposing to upgrade this unique complex of research tools to assure it continues to provide state-of-the-art research capabilities for scientists from around the world. In preparation for the proposed upgrade, the Energy Department asked Brookhaven Lab to prepare an Environmental Assessment (EA) to determine any potential adverse environmental impacts associated with the complex.

The EA process includes a public notice and a public availability period, now under way.

No Action vs. Proposed Action

The EA identifies and discusses impacts from two possible alternatives. The "No-Action" alternative would continue operations at the NSLS complex at present levels for the foreseeable future. Only normal maintenance, repair, and replacement of equipment would take place. This alternative is not desirable as it would prevent the NSLS complex from keeping pace with scientific developments.

The "Proposed Action" would both maintain and upgrade the operating and research capabilities of the complex. The EA details upgrade projects for accelerators, magnet insertion devices, safety systems, controls, computers, diagnostics, beamlines, and miscellaneous activities. Two construction projects (new offices and labs) are also anticipated. Aside from plans to construct a 3,600 square-foot addition to the Source Development Lab, the majority of the proposed work would occur within the existing "footprint" of the NSLS.

The EA includes a comprehensive description



An aerial view of Brookhaven's National Synchrotron Light Source

of the environment near the complex and at Brookhaven Lab as a whole. Details include land use, soil, water resources, climate, air quality, ecological and cultural resources, radiological characteristics, transportation, waste management, and pollution prevention.

Findings

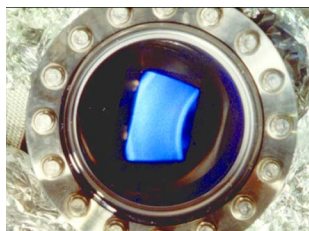
The EA found that the complex has a minimal impact on the environment:

- The complex has no radiological impact on the public or the environment.
- It contributes less than 1 percent to the total waste generated by the Lab.
- The bulk of the water used at the NSLS discharges through the Brookhaven sanitary system, with the remaining roof and parking lot drains emptying into a recharge basin.
- Nitrogen and helium gases, as well as trace amounts of solvents, acids and other chemicals are released into the atmosphere. None of these releases are extensive enough to require state or federal permits.

Since the "No Action" alternative does not involve any change in current operations, no new or added environmental impacts would occur if this option is selected.

The projected impact of the "Proposed Action," meanwhile, would be very similar to the No-Action alternative. Even though the user population and number of experiments would increase, the impacts on waste, water usage, and air emissions would be minimal due to waste minimization and pollution prevention efforts at the NSLS. Over a five-year period, the complex would expect to increase its use of electricity by 19 percent, steam by 6 percent, and cooling water by 18 percent.

For additional information on the NEPA process, contact John Carter, 631 344-5195, jcarter@bnl.gov, or Jerry Granzen, 631 344-4089, granzen@bnl.gov. For information on the NSLS, contact Nick Gmur, 631-344-2490, gmur@bnl.gov.



Synchrotron light inside one of the NSLS research beamlines